

10/624,713

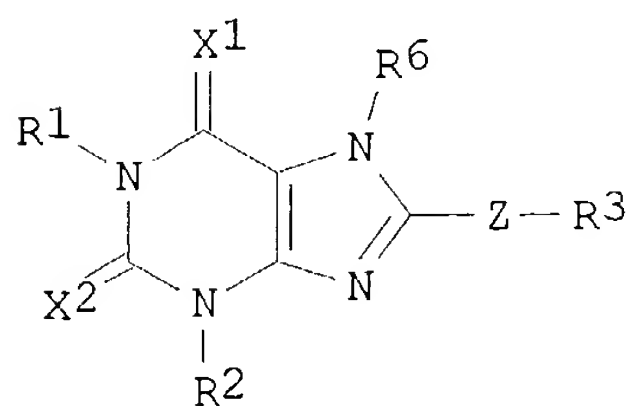
# STN STRUCTURE SEARCH

6-3-04

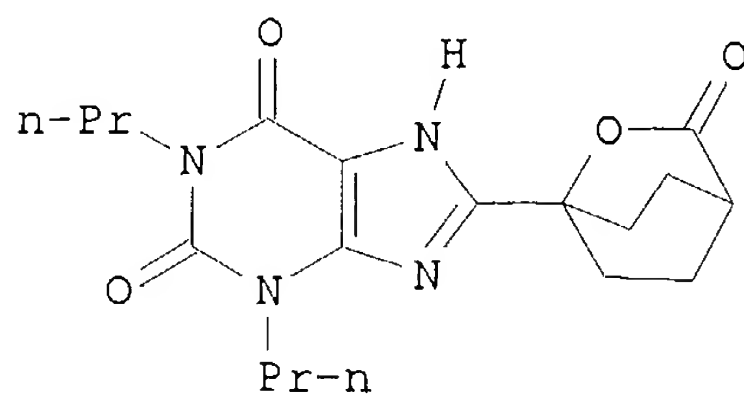
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L4 ANSWER 1 OF 7 CAPLUS COPYRIGHT 2004 ACS on STN  
 ACCESSION NUMBER: 2001:360002 CAPLUS  
 DOCUMENT NUMBER: 134:366889  
 TITLE: Preparation of polycycloalkylpurines as adenosine  
 receptor antagonists  
 INVENTOR(S): Kiesman, William F.; Dowling, James E.; Ensinger,  
 Carol L.; Kumaravel, Gnanasambandam; Petter, Russell  
 C.; Chang, He Xi; Lin, Ko Chung  
 PATENT ASSIGNEE(S): Biogen, Inc., USA  
 SOURCE: PCT Int. Appl., 124 pp.  
 CODEN: PIXXD2  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001034610	A1	20010517	WO 2000-US31058	20001113
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
BR 2000015545	A	20020806	BR 2000-15545	20001113
EP 1230243	A1	20020814	EP 2000-978546	20001113
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
TR 200201260	T2	20020923	TR 2002-200201260	20001113
JP 2003513982	T2	20030415	JP 2001-537323	20001113
EE 200200247	A	20030616	EE 2002-247	20001113
NZ 519426	A	20030829	NZ 2000-519426	20001113
US 6649600	B1	20031118	US 2000-711543	20001113
NO 2002002238	A	20020712	NO 2002-2238	20020510
BG 106762	A	20030131	BG 2002-106762	20020531
US 2004067966	A1	20040408	US 2003-646454	20030821
PRIORITY APPLN. INFO.:			US 1999-165191P	P 19991112
			US 2000-711543	A1 20001113
			WO 2000-US31058	W 20001113
OTHER SOURCE(S):			MARPAT 134:366889	
GI				



I



II

AB The title compds. [I; R1, R2 = H, alkyl, alkenyl, etc.; R3 =

(un)substituted bicyclic, tricyclic, pentacyclic; X1, X2 = O, S; Z = a single bond, O, CH2OCH2, etc.; R6 = H, allyl, acyl, etc.] which are unexpectedly highly potent and selective inhibitors of the adenosine A1 receptor, and therefore can be useful in the prevention and/or treatment of numerous diseases, including cardiac and circulatory disorders, degenerative disorders of the central nervous system, respiratory disorders, and many diseases for which diuretic treatment is suitable, were prepared. E.g., a multi-step synthesis of the purine II was given. All of the compds. I tested exhibited rat A1 Ki values between 0.6 and 433.8 nM, human A1 Ki values between 1.6 and 1000 nM, and human A2a Ki values between 132 and 49930 nM.

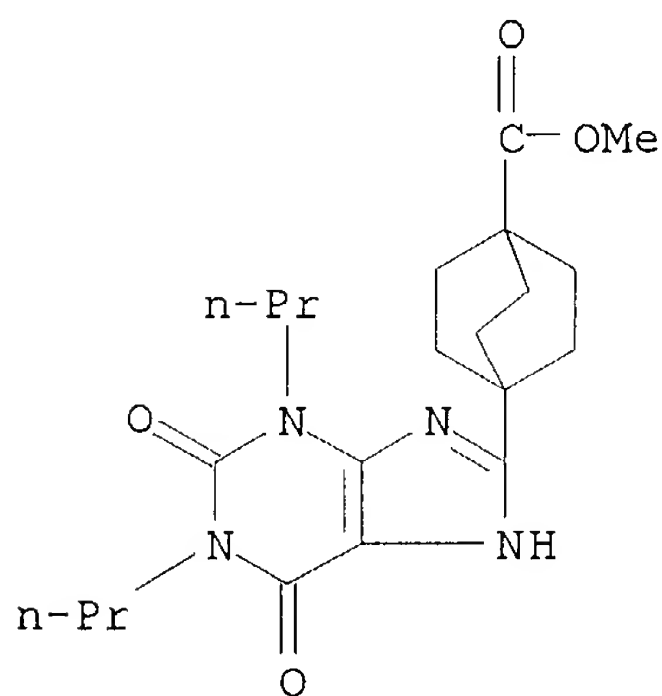
IT **340021-13-8P**

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); RCT (Reactant); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)

(preparation of polycycloalkylpurines as adenosine receptor antagonists)

RN 340021-13-8 CAPLUS

CN Bicyclo[2.2.2]octane-1-carboxylic acid, 4-(2,3,6,7-tetrahydro-2,6-dioxo-1,3-dipropyl-1H-purin-8-yl)-, methyl ester (9CI) (CA INDEX NAME)



IT **340021-10-5P**

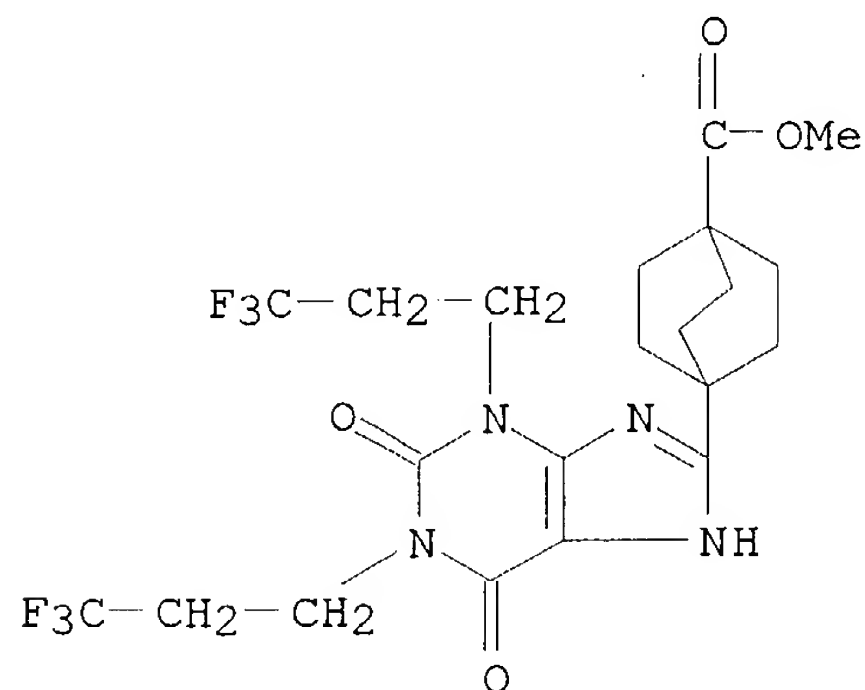
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(preparation of polycycloalkylpurines as adenosine receptor antagonists)

RN 340021-10-5 CAPLUS

CN Bicyclo[2.2.2]octane-1-carboxylic acid, 4-[2,3,6,7-tetrahydro-2,6-dioxo-1,3-bis(3,3,3-trifluoropropyl)-1H-purin-8-yl]-, methyl ester (9CI) (CA INDEX NAME)

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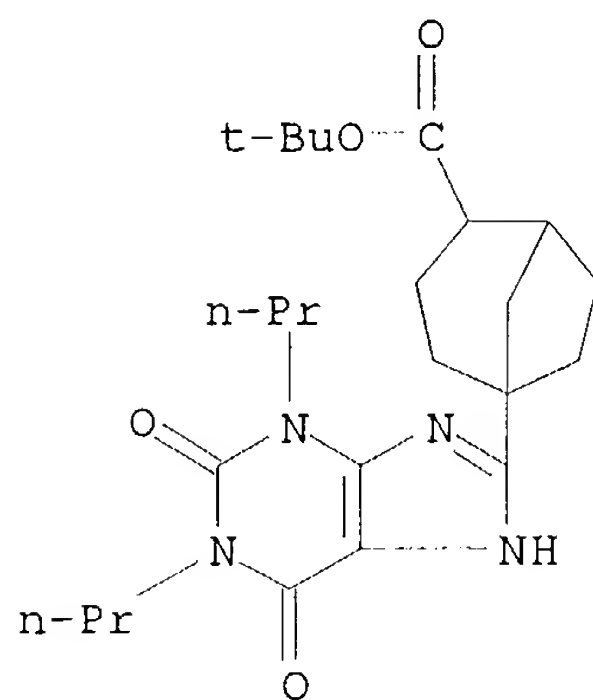
IT 340022-98-2P 340023-07-6P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(preparation of polycycloalkylpurines as adenosine receptor antagonists)

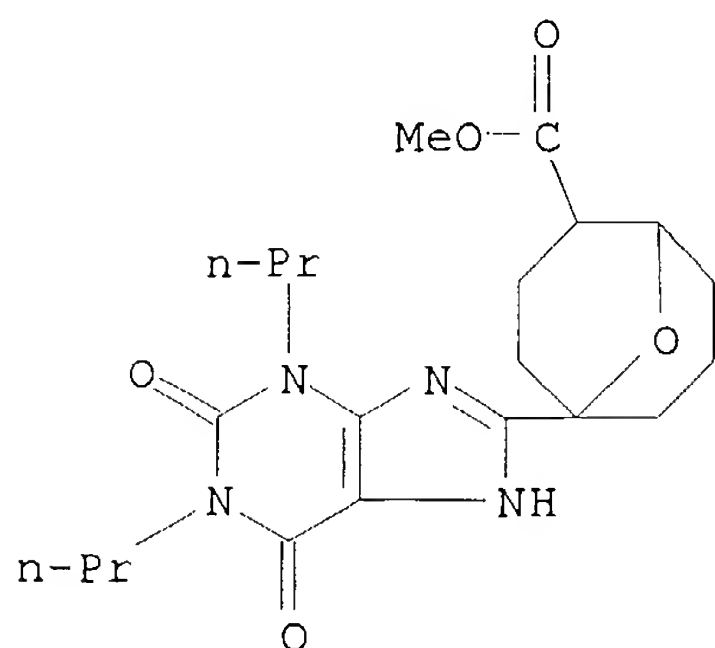
RN 340022-98-2 CAPLUS

CN Bicyclo[3.2.1]octane-2-carboxylic acid, 5-(2,3,6,7-tetrahydro-2,6-dioxo-1,3-dipropyl-1H-purin-8-yl)-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)



RN 340023-07-6 CAPLUS

CN 9-Oxabicyclo[3.3.1]nonane-2-carboxylic acid, 5-(2,3,6,7-tetrahydro-2,6-dioxo-1,3-dipropyl-1H-purin-8-yl)-, methyl ester (9CI) (CA INDEX NAME)



REFERENCE COUNT:

20

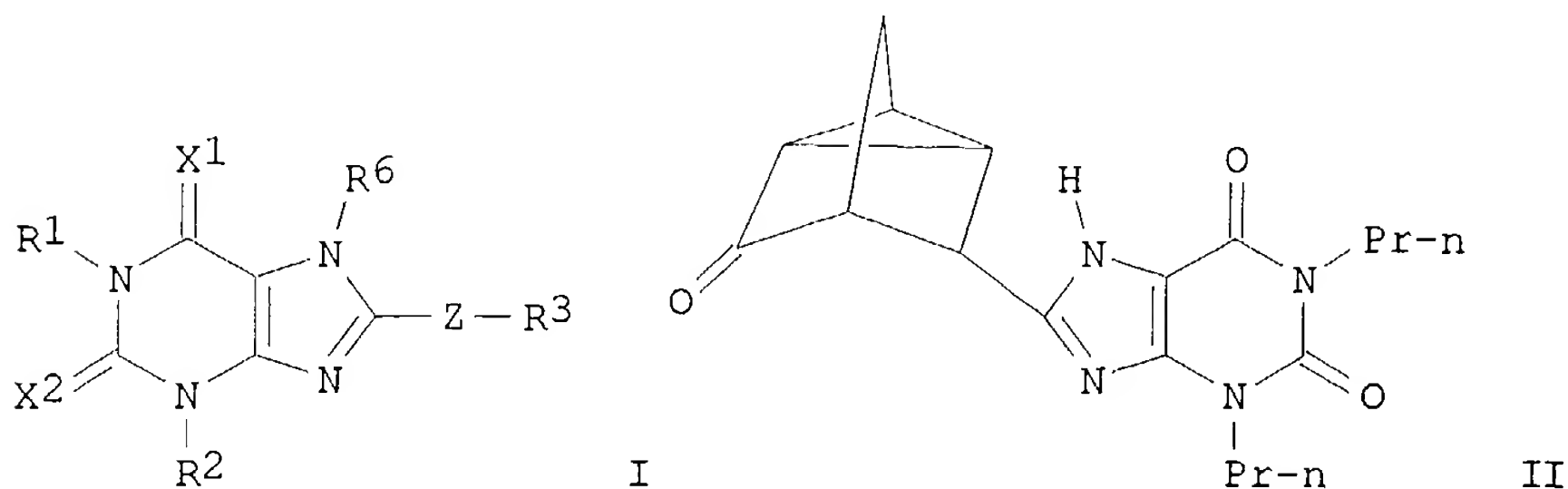
THERE ARE 20 CITED REFERENCES AVAILABLE FOR THIS

10/624;713

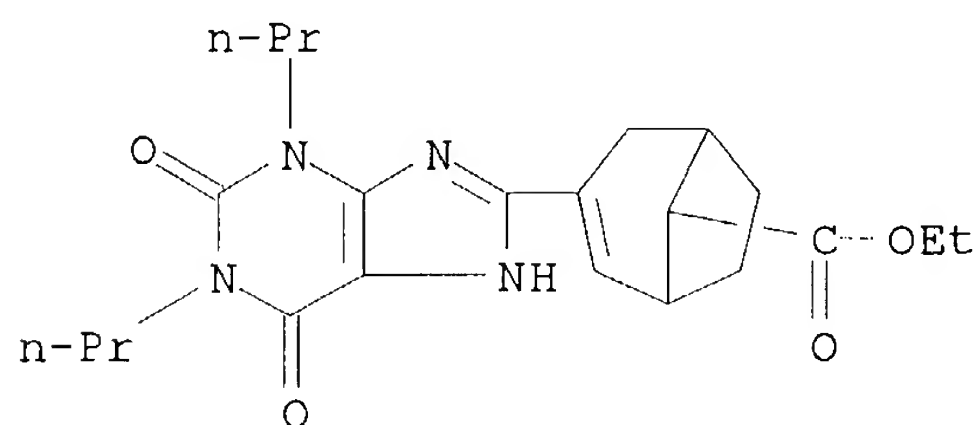
RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 2 OF 7 CAPLUS COPYRIGHT 2004 ACS on STN  
ACCESSION NUMBER: 2001:359996 CAPLUS  
DOCUMENT NUMBER: 134:366887  
TITLE: Preparation of 8-substituted xanthines as adenosine  
receptor antagonists  
INVENTOR(S): Dowling, James E.; Ensinger, Carol; Kumaravel,  
Gnanasambandam; Petter, Russell C.  
PATENT ASSIGNEE(S): Biogen, Inc., USA  
SOURCE: PCT Int. Appl., 61 pp.  
CODEN: PIXXD2  
DOCUMENT TYPE: Patent  
LANGUAGE: English  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001034604	A2	20010517	WO 2000-US31100	20001113
WO 2001034604	A3	20020110		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
BR 2000015540	A	20020723	BR 2000-15540	20001113
EP 1230241	A2	20020814	EP 2000-983698	20001113
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, MC, IE, SI, LT, LV, FI, RO, MK, CY, AL				
JP 2003513976	T2	20030415	JP 2001-536551	20001113
EE 200200248	A	20030616	EE 2002-248	20001113
US 6605600	B1	20030812	US 2000-711554	20001113
NZ 519427	A	20030829	NZ 2000-519427	20001113
TR 200301062	T2	20030922	TR 2003-200301062	20001113
ZA 2002003702	A	20030811	ZA 2002-3702	20020509
NO 2002002237	A	20020712	NO 2002-2237	20020510
BG 106693	A	20030131	BG 2002-106693	20020513
US 2003225038	A1	20031204	US 2003-461534	20030612
PRIORITY APPLN. INFO.:			US 1999-165283P	P 19991112
			US 2000-711554	A1 20001113
			WO 2000-US31100	W 20001113
OTHER SOURCE(S):			MARPAT 134:366887	
GI				

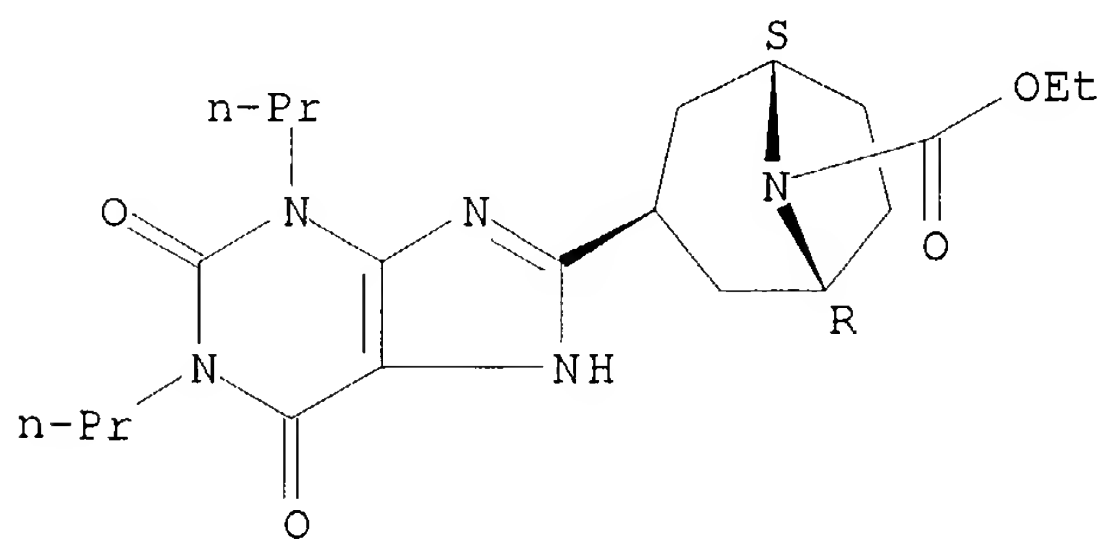


- AB The title compds. [I; R1, R2 = H, alkyl, alkenyl, etc.; R3 = (un)substituted bicyclic or tricyclic group; X1, X2 = O, S; Z = a single bond, O, (CH2)1-3, etc.; R6 = H, alkyl, acyl, etc.] which are unexpectedly highly potent and selective inhibitors of the adenosine A1 receptor, and therefore are useful in the prevention and/or treatment of numerous diseases, including cardiac and circulatory disorders, degenerative disorders of the central nervous system, respiratory disorders, and many diseases for which diuretic treatment is suitable, were prepared E.g., a 2-step synthesis of II was given. All of the compds. I tested exhibited rat A1 Ki values between 0.47 and 1225 nM, human A1 Ki values between 12 and 1000 nM, and human A2a Ki values between 18 and 100,000 nM.
- IT **340163-21-5P 340163-51-1P 340164-00-3P**  
 RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)  
 (preparation of 8-substituted xanthines as adenosine receptor antagonists)
- RN 340163-21-5 CAPLUS
- CN Bicyclo[3.2.1]oct-2-ene-8-carboxylic acid, 3-(2,3,6,7-tetrahydro-2,6-dioxo-1,3-dipropyl-1H-purin-8-yl)-, ethyl ester (9CI) (CA INDEX NAME)



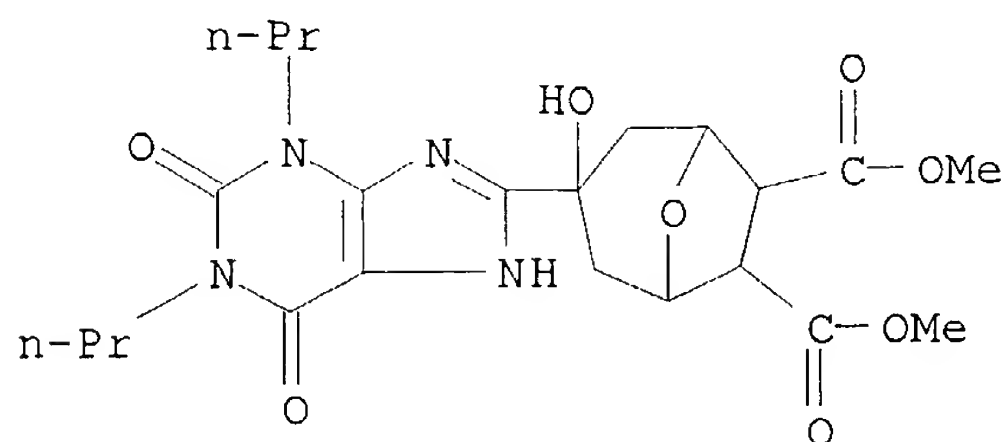
- RN 340163-51-1 CAPLUS
- CN 8-Azabicyclo[3.2.1]octane-8-carboxylic acid, 3-(2,3,6,7-tetrahydro-2,6-dioxo-1,3-dipropyl-1H-purin-8-yl)-, ethyl ester, (3-exo)- (9CI) (CA INDEX NAME)

Relative stereochemistry.



- RN 340164-00-3 CAPLUS
- CN 8-Oxabicyclo[3.2.1]octane-6,7-dicarboxylic acid, 3-hydroxy-3-(2,3,6,7-tetrahydro-2,6-dioxo-1,3-dipropyl-1H-purin-8-yl)-, dimethyl ester (9CI) (CA INDEX NAME)

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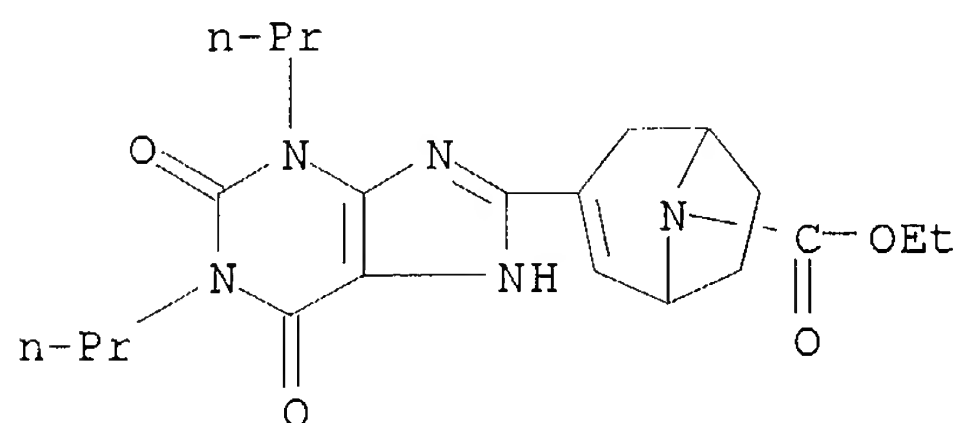
IT 340164-33-2 340255-31-4

RL: RCT (Reactant); RACT (Reactant or reagent)

(preparation of 8-substituted xanthines as adenosine receptor antagonists)

RN 340164-33-2 CAPLUS

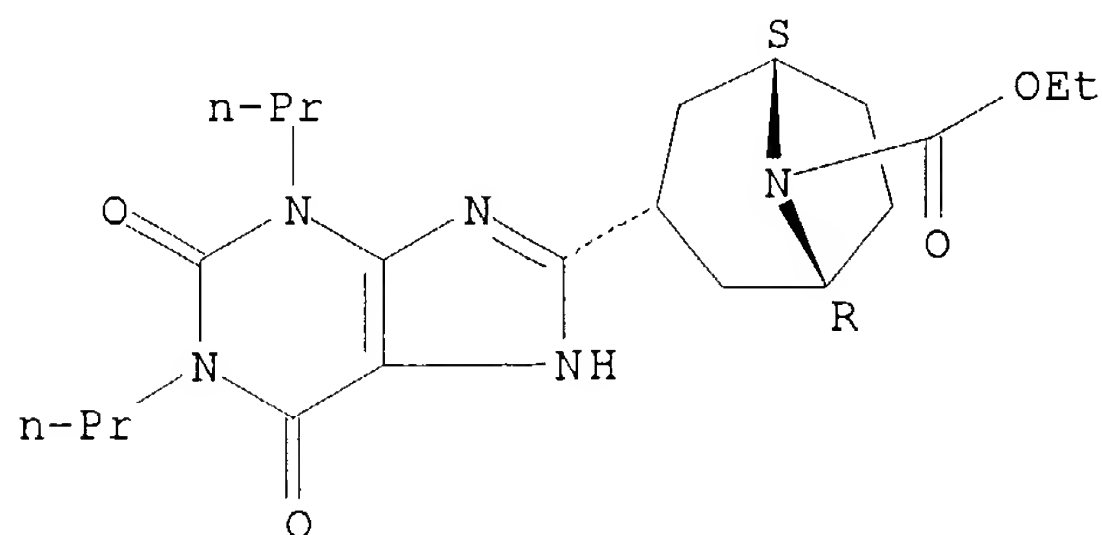
CN 8-Azabicyclo[3.2.1]oct-2-ene-8-carboxylic acid, 3-(2,3,6,7-tetrahydro-2,6-dioxo-1,3-dipropyl-1H-purin-8-yl)-, ethyl ester (9CI) (CA INDEX NAME)



RN 340255-31-4 CAPLUS

CN 8-Azabicyclo[3.2.1]octane-8-carboxylic acid, 3-(2,3,6,7-tetrahydro-2,6-dioxo-1,3-dipropyl-1H-purin-8-yl)-, ethyl ester, (3-endo)- (9CI) (CA INDEX NAME)

Relative stereochemistry.



L4 ANSWER 3 OF 7 CAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 1999:447538 CAPLUS

DOCUMENT NUMBER: 131:257377

TITLE: Convenient one-pot synthesis of 8-substituted xanthines from 6-amino-5-nitrosouracils

AUTHOR(S): Moore, Amy G.; Schow, Steven R.; Lum, Robert T.; Nelson, Marek G.; Melville, Chris R.

CORPORATE SOURCE: CV Therapeutics, Palo Alto, CA, 94304, USA

SOURCE: Synthesis (1999), (7), 1123-1126

CODEN: SYNTBF; ISSN: 0039-7881

PUBLISHER: Georg Thieme Verlag

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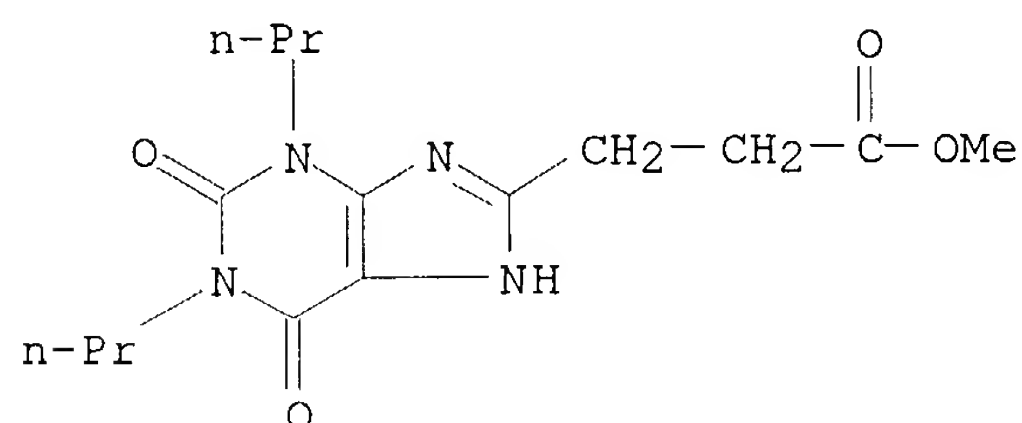
DOCUMENT TYPE: Journal  
LANGUAGE: English  
OTHER SOURCE(S): CASREACT 131:257377

AB C(8)-substituted 1,3-dipropylxanthines are typically prepared by reduction of 6-amino-5-nitroso-1,3-dipropyluracil (I) to the corresponding diamine, which is acylated and then treated with strongly basic or dehydrating reagents to afford xanthines. Working to discover a milder, more efficient, reaction sequence, it was found that the amino group of I can be acylated, and that treatment of the resulting compds. with Sn(OAc)<sub>2</sub> gave 8-substituted xanthines. Overall, a 1-pot conversion of I to 1,3-dipropylxanthines was achieved involving in situ acylation, reduction, and cyclodehydration. These conditions can be used to generate the imidazole substructure in the presence of acid- and base-sensitive groups on the C(8) position.

IT **244622-21-7P**  
RL: SPN (Synthetic preparation); PREP (Preparation)  
(preparation of xanthines from aminonitrosouracils)

RN 244622-21-7 CAPLUS

CN 1H-Purine-8-propanoic acid, 2,3,6,7-tetrahydro-2,6-dioxo-1,3-dipropyl-, methyl ester (9CI) (CA INDEX NAME)



REFERENCE COUNT: 21 THERE ARE 21 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 4 OF 7 CAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 1992:426198 CAPLUS

DOCUMENT NUMBER: 117:26198

TITLE: Preparation of [(poly)cyclic (oxa)alkyl]xanthines and analogs as adenosine antagonists

INVENTOR(S): Kuefner-Muehl, Ulrike; Stransky, Werner; Walther, Gerhard; Weber, Karl Heinz; Ensinger, Helmut; Kuhn, Franz Josef; Schingnitz, Guenter; Lehr, Erich

PATENT ASSIGNEE(S): Boehringer Ingelheim K.-G., Germany

SOURCE: Ger. Offen., 28 pp.

CODEN: GWXXBX

DOCUMENT TYPE: Patent

LANGUAGE: German

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 4019892	A1	19920102	DE 1990-4019892	19900622
CA 2064742	AA	19911223	CA 1991-2064742	19910619
WO 9200297	A1	19920109	WO 1991-EP1131	19910619
W: CA, JP, US				
RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LU, NL, SE				
EP 487673	A1	19920603	EP 1991-910772	19910619
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE				
JP 05501265	T2	19930311	JP 1991-510343	19910619

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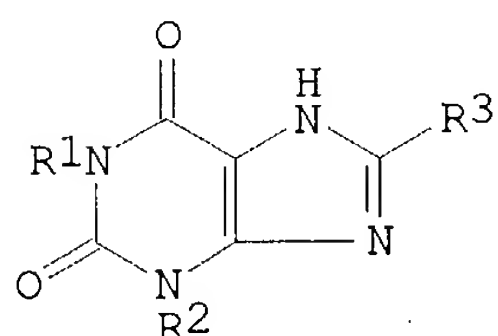
US 5641784  
PRIORITY APPLN. INFO.:

A 19970624

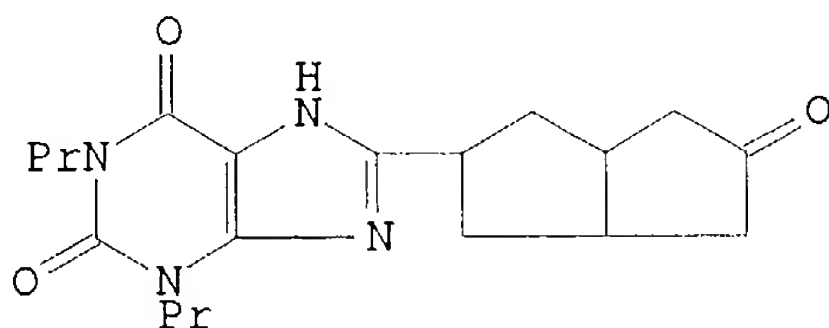
US 1994-362105	19941222
DE 1990-4019892	19900622
WO 1991-EP1131	19910619
US 1992-834550	19920320
US 1993-168280	19931215

OTHER SOURCE(S):  
GI

MARPAT 117:26198



I



II

AB Title compds. [I; R1, R2 = alkyl, alkenyl, alkynyl; R3 = N-attached heterocyclyl, monosaccharide, cycloalkanone ketal; (poly)cyclic (oxa)alkyl, etc.] were prepared as adenosine antagonists (no data). Thus, 7-carboxyspiro[cis-bicyclo[3.3.0]octane-3,2'-(1,3-dithiolane)] (preparation given) was cyclocondensed with 5,6-diamino-1,3-dipropyluracil and the product hydrolyzed to give title compound II.

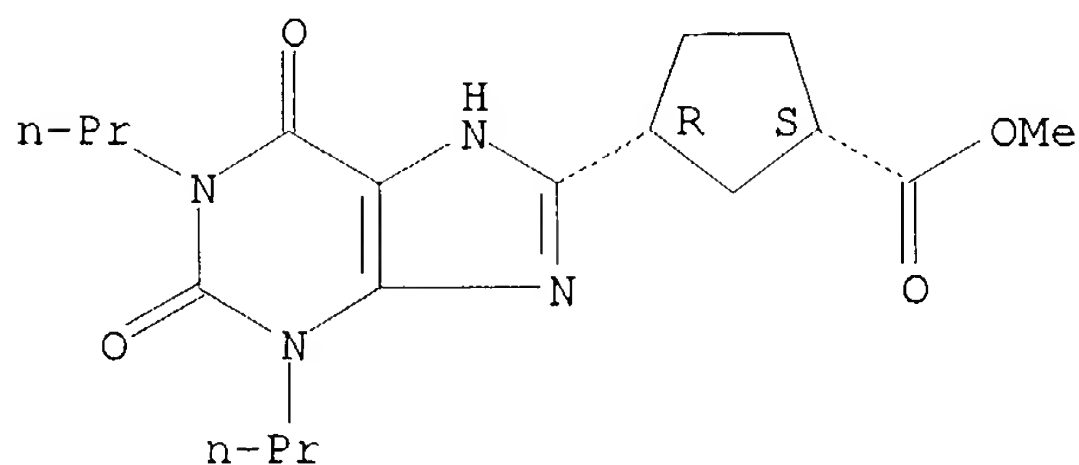
IT **141283-27-4P**

RL: SPN (Synthetic preparation); PREP (Preparation)  
(preparation of, as adenosine antagonist)

RN 141283-27-4 CAPLUS

CN Cyclopentanecarboxylic acid, 3-(2,3,6,7-tetrahydro-2,6-dioxo-1,3-dipropyl-1H-purin-8-yl)-, methyl ester, cis- (9CI) (CA INDEX NAME)

Relative stereochemistry.



L4 ANSWER 5 OF 7 CAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 1990:478009 CAPLUS

DOCUMENT NUMBER: 113:78009

TITLE: Structure-activity relationships of  
8-cycloalkyl-1,3-dipropylxanthines as antagonists of  
adenosine receptors

AUTHOR(S): Katsushima, T.; Nieves, L.; Wells, J. N.

CORPORATE SOURCE: Sch. Med., Vanderbilt Univ., Nashville, TN, 37232, USA

SOURCE: Journal of Medicinal Chemistry (1990), 33(7), 1906-10

CODEN: JMCMAR; ISSN: 0022-2623

DOCUMENT TYPE: Journal

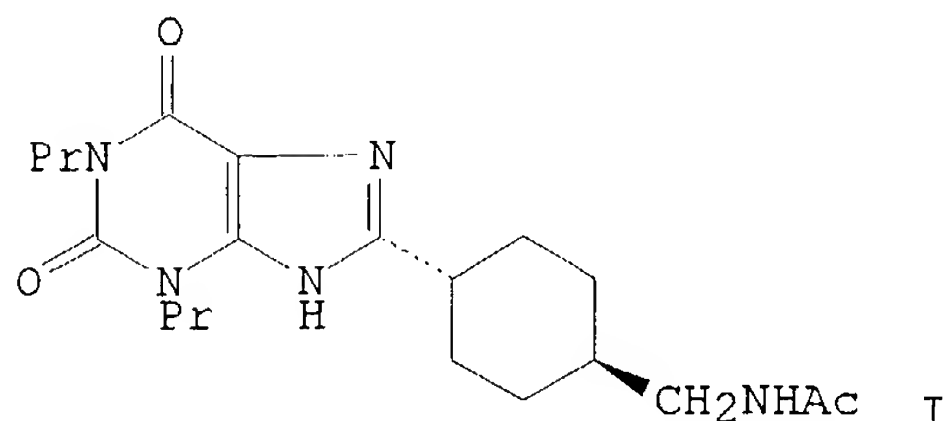
LANGUAGE: English

OTHER SOURCE(S): CASREACT 113:78009

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AB A series of 8-substituted 1,3-dipropylxanthines was prepared and their potency as antagonists of A1 and A2 adenosine receptors of human platelets and rat adipocytes, resp., were determined. No agents studied were as potent as 8-cyclopentyl-1,3-dipropylxanthine as antagonists of the A1 adenosine receptor, but 8-(2-methylcyclopropyl)-1,3-dipropylxanthine was at least 1000-fold more potent as an antagonist of A1 than of A2 adenosine receptors. While most substitutions on the 8-cycloalkyl moiety caused decreased inhibition of both A1 and A2 adenosine receptors, the acetamidomethylcyclohexylxanthine I was nearly equipotent as an antagonist of the two receptors and appeared to be the most potent antagonist of A2 adenosine receptors reported to date.

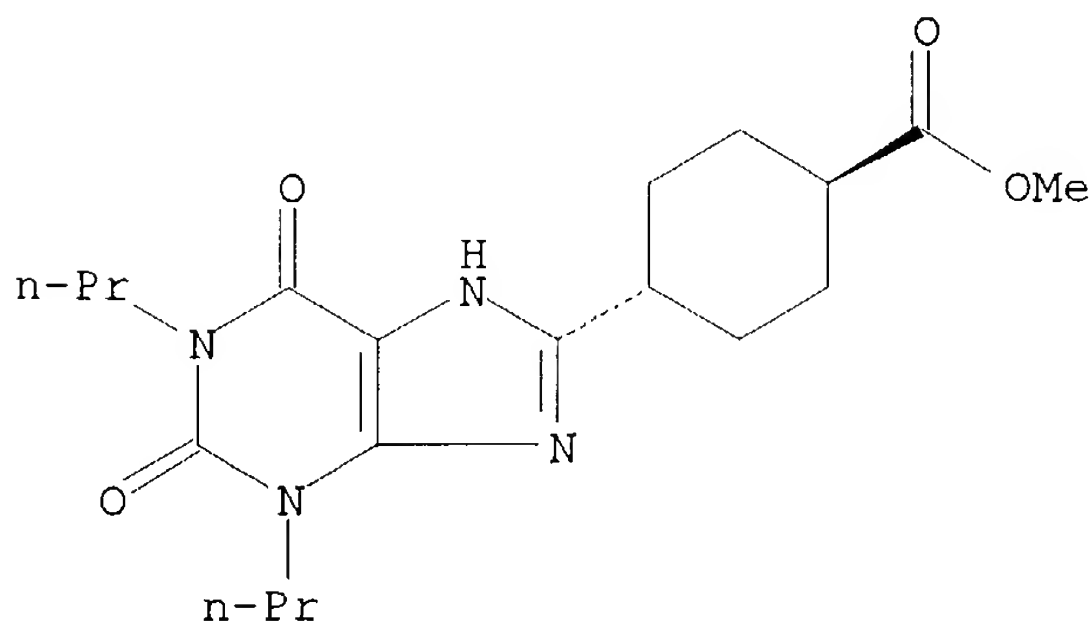
IT **127946-03-6P**

RL: SPN (Synthetic preparation); PREP (Preparation)  
(preparation and adenosine receptor antagonist activity of)

RN 127946-03-6 CAPLUS

CN Cyclohexanecarboxylic acid, 4-(2,3,6,7-tetrahydro-2,6-dioxo-1,3-dipropyl-1H-purin-8-yl)-, methyl ester, trans- (9CI) (CA INDEX NAME)

Relative stereochemistry.



L4 ANSWER 6 OF 7 CAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 1988:549232 CAPLUS

DOCUMENT NUMBER: 109:149232

TITLE: Preparation of 8-aryl xanthines as cardiotonics

INVENTOR(S): Rzeszutarski, Wacław Janusz; Hicks, Rickey P.;  
Erickson, Ronald H.

PATENT ASSIGNEE(S): Marion Laboratories, Inc., USA

SOURCE: Eur. Pat. Appl., 14 pp.

CODEN: EPXXDW

DOCUMENT TYPE: Patent

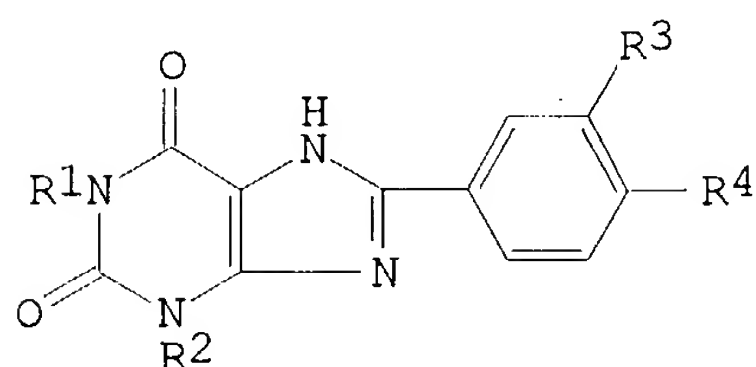
LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

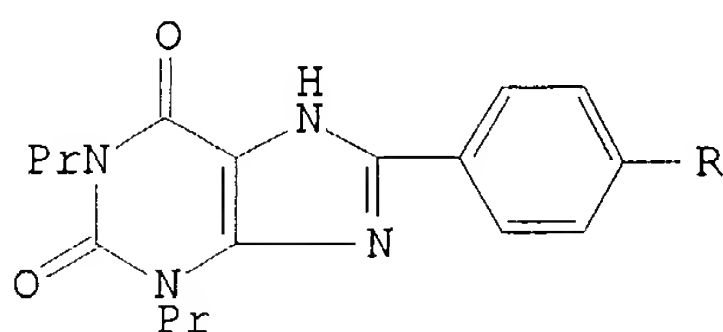
PATENT INFORMATION:

10/624,713

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 267607	A1	19880518	EP 1987-116714	19871112
EP 267607	B1	19911127		
R: DE, FR, GB				
US 4783530	A	19881108	US 1987-108990	19871001
JP 63154687	A2	19880627	JP 1987-286423	19871112
JP 05046349	B4	19930713		
CA 1271473	A1	19900710	CA 1987-551660	19871112
PRIORITY APPLN. INFO.:			US 1986-931620	19861113
			US 1987-108990	19871001
OTHER SOURCE(S):			CASREACT 109:149232; MARPAT 109:149232	
GI				



I



II

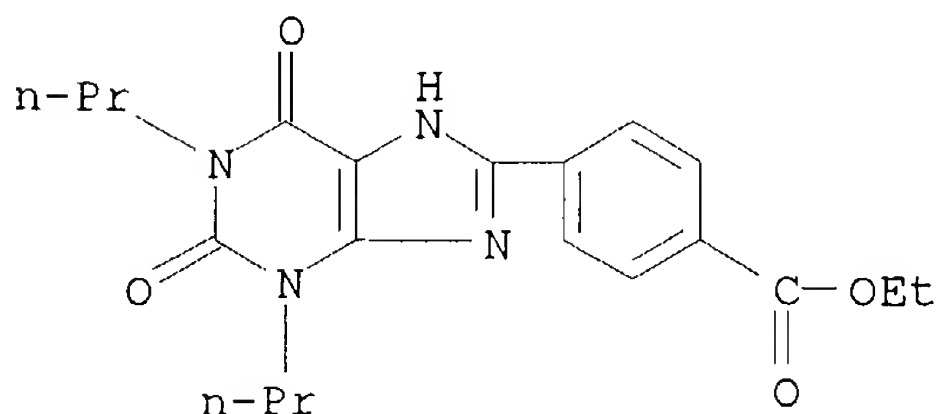
AB The title compds. [I; R1,R2 = C1-6 alkyl; R3 = H, CH2NMe2, OCH2CH(OH)CH2OH; R4 = OH, cyano, NHCONR52, C(:NH)NR52; R5 = H, C1-3 alkyl] were prepared 1,3-Dipropyl-5,6-diaminouracil and 4-(O2N)C6H4CHO were refluxed for 1 h in EtOH containing HOAc to give 1,3-dipropyl-5-amino-6-(4-nitrophenyl)iminouracil which was heated at 90° with EtO2CN:NCO2Et in PhMe to give nitrophenylxanthine II (R = NO2). The latter was hydrogenated to the amino derivative which stirred with HCO2CCl3 for 20 h in THF, followed by 5 h reflux with Me2NH to give II (R = NHCONMe2), which gave 50% inhibition of NECA-induced depression of contractility of perfused guinea-pig heart at 0.36 µM.

IT **116545-94-9P**

RL: SPN (Synthetic preparation); FORM (Formation, nonpreparative); PREP (Preparation)  
(formation of, in preparation of cardiotonics)

RN 116545-94-9 CAPLUS

CN Benzoic acid, 4-(2,3,6,7-tetrahydro-2,6-dioxo-1,3-dipropyl-1H-purin-8-yl)-, ethyl ester (9CI) (CA INDEX NAME)



L4 ANSWER 7 OF 7 CAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 1988:94512 CAPLUS

DOCUMENT NUMBER: 108:94512

TITLE: 8-Aryl- and 8-cycloalkyl-1,3-dipropylxanthines:  
further potent and selective antagonists for  
A1-adenosine receptors

10/624,713

AUTHOR(S): Shamim, M. T.; Ukena, D.; Padgett, W. L.; Hong, O.;  
Daly, J. W.  
CORPORATE SOURCE: Lab. Bioorg. Chem., Natl. Inst. Diabetes, Dig. Kidney  
Dis., Bethesda, MD, 20892, USA  
SOURCE: Journal of Medicinal Chemistry (1988), 31(3), 613-17  
CODEN: JMCMAR; ISSN: 0022-2623  
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OTHER SOURCE(S): CASREACT 108:94512

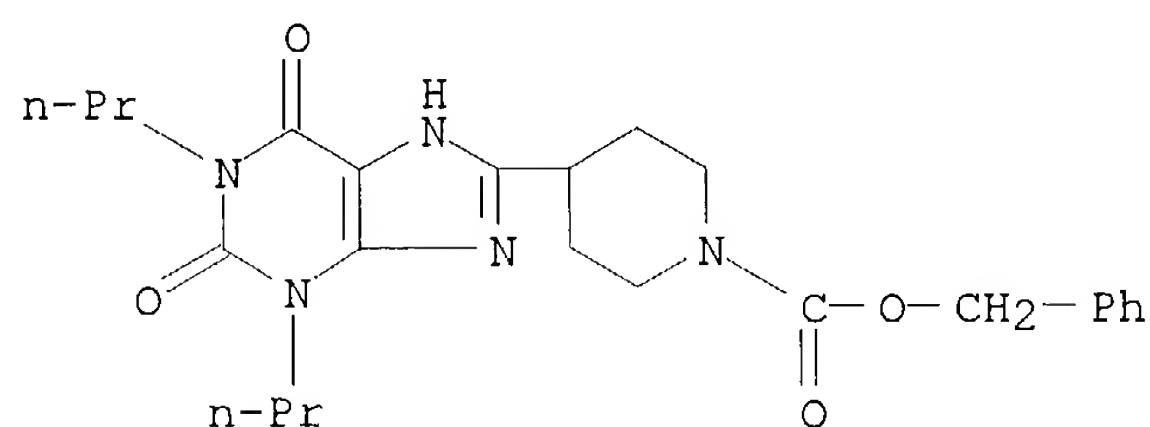
AB A series of 1,3-dipropylxanthines were prepared with a variety of  
substituents, including aryl and cycloalkyl groups, at the 8-position.  
Polar carboxylate and carboxamide moieties were introduced as aryl  
substituents to increase H<sub>2</sub>O solubility. 1,3-Dipropyl-8-[2-hydroxy-4-  
[(carboxymethyl)oxy]phenyl]xanthine (I) is a functionalized congener with  
high potency (K<sub>i</sub> = 37 nM) and selectivity (54-fold) for A<sub>1</sub>-adenosine  
receptors. I was used to prepare a series of other analogs, some with  
higher potency and some with higher selectivity. 8-Cyclopentyl- and  
8-cyclohexyl-1,3-dipropylxanthines were both very potent (K<sub>i</sub> = 1-1.5 nM)  
and selective for A<sub>1</sub> receptors, while 8-cycloalkylmethyl analogs were  
10-fold less potent, but still very selective for A<sub>1</sub> receptors.  
8-Piperidinyl and 8-pyrazinyl analogs had very low activities as adenosine  
receptor antagonists.

IT **112683-80-4P**

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT  
(Reactant or reagent)  
(preparation and deprotection of)

RN 112683-80-4 CAPLUS

CN 1-Piperidinecarboxylic acid, 4-(2,3,6,7-tetrahydro-2,6-dioxo-1,3-dipropyl-  
1H-purin-8-yl)-, phenylmethyl ester (9CI) (CA INDEX NAME)



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(FILE 'HOME' ENTERED AT 14:15:21 ON 03 JUN 2004)

FILE 'REGISTRY' ENTERED AT 14:15:32 ON 03 JUN 2004

L1 STRUCTURE UPLOADED

L2 4 S L1

L3 14 S L1 FULL

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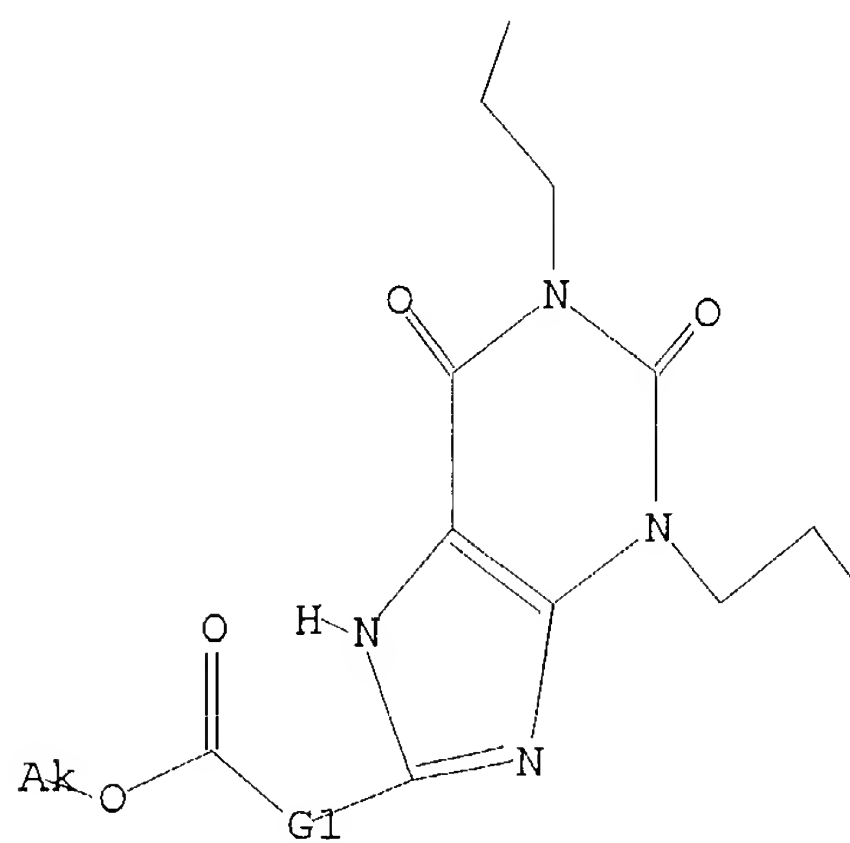
L4 7 S L3

=> d 11

L1 HAS NO ANSWERS

L1 STR

10/624,713



G1 Cy,Ak

Structure attributes must be viewed using STN Express query preparation.

=>

Day : Thursday

Date: 6/3/2004

Time: 08:45:02

 PALM INTRANET**Inventor Name Search Result**

Your Search was:

Last Name = DRUZGALA

First Name = PASCAL

Application#	Patent#	Status	Date Filed	Title	Inventor Name 51
<u>60397099</u>	Not Issued	159	07/19/2002	NOVEL XANTHINES HAVING ADENOSINE A1-RECEPTOR ANTAGONIST PROPERTIES	DRUZGALA, PASCAL
<u>60397076</u>	Not Issued	159	07/19/2002	MATERIALS AND METHODS FOR TREATING HYPERCHOLESTEROLEMIA	DRUZGALA, PASCAL
<u>60350516</u>	Not Issued	159	01/18/2002	NOVEL ANTICHOLINERGIC COMPUNDS FOR THE TREATMENT OF INCONTINENCE	DRUZGALA, PASCAL
<u>60350504</u>	Not Issued	159	01/18/2002	NOVEL 5-HT3 RECEPTOR ANTAGONISTS AND METHODS OF USE	DRUZGALA, PASCAL
<u>60341743</u>	Not Issued	159	12/17/2001	ANALGESIC DELIVERY SYSTEMS AND METHODS OF USE	DRUZGALA, PASCAL
<u>60339898</u>	Not Issued	159	12/10/2001	NOVEL COMPOUNDS FOR TREATMENT OF CARDIAC ARRHYTHMIA, SYNTHESIS, AND METHODS OF USE	DRUZGALA, PASCAL
<u>60328588</u>	Not Issued	159	10/10/2001	MATERIALS AND METHODS FOR THE TREATMENT OF HYPERTENSION AND ANGINA	DRUZGALA, PASCAL
<u>60314792</u>	Not Issued	159	08/24/2001	NON-OXIDATIVELY METABOLIZED COMPOUNDS AND COMPOSITIONS, SYNTHETIC PATHWAYS THEREFOR, AND USES THEREOF	DRUZGALA, PASCAL
<u>60297838</u>	Not Issued	159	06/13/2001	MATERIALS AND METHODS FOR THE TREATMENT OF DIABETES, HYPERLIPIDEMIA, HYPERCHOLESTEROLEMIA,	DRUZGALA, PASCAL

				AND ATHEROSCLEROSIS	
<u>60290089</u>	Not Issued	159	05/10/2001	NOVEL ENANTIOMERIC COMPOUNDS FOR TREATMENT OF CARDIAC ARRHYTHMIAS AND METHODS OF USE	DRUZGALA, PASCAL
<u>60286079</u>	Not Issued	159	04/24/2001	MATERIALS AND METHODS FOR TREATING COAGULATION DISORDERS	DRUZGALA, PASCAL
<u>60281982</u>	Not Issued	159	04/06/2001	MATERIALS AND METHODS FOR THE TREATMENT OF DIABETES, HYPERLIPIDEMIA, HYPERCHOLESTEROLEMIA, AND ATHEROSCLEROSIS	DRUZGALA, PASCAL
<u>60281134</u>	Not Issued	159	04/03/2001	NOVEL ANTICHOLINERGIC COMPOUNDS FOR THE TREATMENT OF INCONTINENCE	DRUZGALA, PASCAL
<u>60281080</u>	Not Issued	159	04/03/2001	ULTRASHORT-ACTING OPIOIDS FOR TRANSDERMAL APPLICATION	DRUZGALA, PASCAL
<u>60234423</u>	Not Issued	159	09/21/2000	ISOXAZOLIDINE COMPOUNDS USEFUL IN THE TREATMENT OF DIABETES, HYPERLIPIDEMIA, AND ATHEROSCLEROSIS IN MAMMALS	DRUZGALA, PASCAL
<u>60209926</u>	Not Issued	159	06/07/2000	MATERIALS AND METHODS FOR THE TREATMENT OF GASTROESOPHAGEAL REFLUX DISEASE	DRUZGALA, PASCAL
<u>60199343</u>	Not Issued	159	04/24/2000	MATERIALS AND METHODS FOR THE TREATMENT OF DEPRESSION	DRUZGALA, PASCAL
<u>60199146</u>	Not Issued	159	04/24/2000	MATERIALS AND METHODS FOR THE TREATMENT OF DIABETES	DRUZGALA, PASCAL
<u>60199144</u>	Not Issued	159	04/24/2000	ULTRASHORT ACTING HYPNOTIC BARBITURATES	DRUZGALA, PASCAL
<u>60199143</u>	Not Issued	159	04/24/2000	MATERIALS AND METHODS FOR TREATING COAGULATION DISORDERS	DRUZGALA, PASCAL
<u>10799546</u>	Not Issued	020	03/11/2004	NOVEL COMPOUNDS FOR TREATMENT OF CARDIAC ARRHYTHMIA, SYNTHESIS, AND METHODS OF USE	DRUZGALA, PASCAL



<u>10771483</u>	Not Issued	020	02/02/2004	ULTRASHORT-ACTING OPIOIDS FOR TRANSDERMAL APPLICATIONS	DRUZGALA, PASCAL
<u>10763904</u>	Not Issued	030	01/23/2004	ULTRASHORT ACTING HYPNOTIC BARBITURATES	DRUZGALA, PASCAL
<u>10759617</u>	Not Issued	020	01/16/2004	MATERIALS AND METHODS FOR THE TREATMENT OF DIABETES, HYPERLIPIDEMIA, HYPERCHOLESTEROLEMIA, AND ATHEROSCLEROSIS	DRUZGALA, PASCAL
<u>10697683</u>	Not Issued	041	10/29/2003	NOVEL ENANTIOMERIC COMPOUNDS FOR TREATMENT OF CARDIAC ARRHYTHMIAS AND METHODS OF USE	DRUZGALA, PASCAL
<u>10643699</u>	Not Issued	041	08/18/2003	MATERIALS AND METHODS FOR THE TREATMENT OF HYPERTENSION AND ANGINA	DRUZGALA, PASCAL
<u>10624713</u>	Not Issued	030	07/21/2003	NOVEL XANTHINES HAVING ADENOSINE A1-RECEPTOR ANTAGONIST PROPERTIES	DRUZGALA, PASCAL
<u>10624659</u>	Not Issued	040	07/21/2003	MATERIALS AND METHODS FOR TREATING HYPERCHOLESTEROLEMIA	DRUZGALA, PASCAL
<u>10418842</u>	Not Issued	071	04/18/2003	MATERIALS AND METHODS FOR THE TREATMENT OF GASTROESOPHAGEAL REFLUX DISEASE	DRUZGALA, PASCAL
<u>10348669</u>	Not Issued	094	01/21/2003	NOVEL 5-HT3 RECEPTOR ANTAGONISTS AND METHODS OF USE	DRUZGALA, PASCAL
<u>10321410</u>	Not Issued	030	12/17/2002	ANALGESIC DELIVERY SYSTEMS AND METHODS OF USE	DRUZGALA, PASCAL
<u>10319073</u>	<u>6710070</u>	150	12/10/2002	NOVEL COMPOUNDS FOR TREATMENT OF CARDIAC ARRHYTHMIA, SYNTHESIS, AND METHODS OF USE	DRUZGALA, PASCAL
<u>10273702</u>	Not Issued	071	10/18/2002	MATERIALS AND METHODS FOR THE TREATMENT OF DEPRESSION	DRUZGALA, PASCAL
<u>10269139</u>	<u>6608097</u>	150	10/10/2002	MATERIALS AND METHODS FOR THE TREATMENT OF HYPERTENSION AND ANGINA	DRUZGALA, PASCAL
<u>10251522</u>	Not	041	09/20/2002	MATERIALS AND METHODS	DRUZGALA,

	Issued			FOR THE TREATMENT OF DIABETES, HYPERLIPIDEMIA, HYPERCHOLESTEROLEMIA, AND ATHEROSCLEROSIS	PASCAL
<u>10228670</u>	Not Issued	030	08/26/2002	NON-OXIDATIVELY METABOLIZED COMPOUNDS AND COMPOSITIONS, SYNTHETIC PATHWAYS THEREFOR, AND USES THEREOF	DRUZGALA, PASCAL
<u>10145601</u>	<u>6683086</u>	150	05/13/2002	ULTRASHORT ACTING HYPNOTIC BARBITURATES	DRUZGALA, PASCAL
<u>10132750</u>	Not Issued	061	04/24/2002	MATERIALS AND METHODS FOR TREATING COAGULATION DISORDERS	DRUZGALA, PASCAL
<u>10123573</u>	<u>6683195</u>	150	04/15/2002	NOVEL ENANTIOMERIC COMPOUNDS FOR TREATMENT OF CARDIAC ARRHYTHMIAS AND METHODS OF USE	DRUZGALA, PASCAL
<u>10116320</u>	<u>6686377</u>	150	04/03/2002	ULTRASHORT-ACTING OPIOIDS FOR TRANSDERMAL APPLICATION	DRUZGALA, PASCAL
<u>10116202</u>	Not Issued	041	04/03/2002	NOVEL ANTICHOLINERGIC COMPOUNDS AND METHODS OF USE	DRUZGALA, PASCAL
<u>09961542</u>	Not Issued	094	09/21/2001	MATERIALS AND METHODS FOR THE TREATMENT OF DIABETES, HYPERLIPIDEMIA, HYPERCHOLESTEROLEMIA, AND ATHEROSCLEROSIS	DRUZGALA, PASCAL
<u>09961538</u>	Not Issued	093	09/21/2001	ISOXAZOLIDINE COMPOUNDS USEFUL IN THE TREATMENT OF DIABETES, HYPERLIPIDEMIA, AND ATHEROSCLEROSIS IN MAMMALS	DRUZGALA, PASCAL
<u>09876698</u>	<u>6552046</u>	150	06/07/2001	MATERIALS AND METHODS FOR THE TREATMENT OF GASTROESOPHAGEAL REFLUX DISEASE	DRUZGALA, PASCAL
<u>09841749</u>	<u>6469064</u>	150	04/24/2001	MATERIALS AND METHODS FOR THE TREATMENT OF DEPRESSION	DRUZGALA, PASCAL
<u>09841738</u>	<u>6387914</u>	150	04/24/2001	ULTRASHORT ACTING HYPNOTIC BARBITURATES	DRUZGALA, PASCAL



<u>09841351</u>	<u>6680387</u>	150	04/24/2001	MATERIALS AND METHODS FOR THE TREATMENT OF DIABETES, HYPERLIPIDEMIA, HYPERCHOLESTEROLEMIA, AND ATHEROSCLEROSIS	DRUZGALA, PASCAL
<u>09684046</u>	<u>6362223</u>	150	10/06/2000	NOVEL ENANTIOMERIC COMPOUNDS FOR TREATMENT OF CARDIAC ARRHYTHMIAS AND METHODS OF USE	DRUZGALA, PASCAL
<u>09680880</u>	<u>6316487</u>	150	10/06/2000	NOVEL COMPOUNDS FOR TREATMENT OF CARDIAC ARRHYTHMIA SYNTHESIS, AND METHODS OF USE	DRUZGALA, PASCAL
<u>09680873</u>	<u>6372783</u>	150	10/06/2000	NOVEL ENANTIOMERIC COMPOUNDS FOR TREATMENT OF CARDIAC ARRHYTHMIAS AND METHODS OF USE	DRUZGALA, PASCAL
<u>08260869</u>	<u>5440054</u>	150	06/16/1994	NOVEL COMPOUND FOR TREATMENT OF CARDIAC ARRHYTHMIA, SYNTHESIS, AND METHODS OF USE	DRUZGALA, PASCAL

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## Inventor Name Search Result

Your Search was:

Last Name = DRUZGALA

First Name = PASCAL

Application#	Patent#	Status	Date Filed	Title	Inventor Name 13
<u>60159609</u>	Not Issued	159	10/15/1999	METHOD FOR TREATING VENTRICULAR AND SUPRAVENTRICULAR ARRHYTHMIAS	DRUZGALA , PASCAL J.
<u>60120053</u>	Not Issued	159	10/29/1998	ULTRASHORT ACTING HYPNOTIC BARBITURATES	DRUZGALA , PASCAL J.
<u>60104051</u>	Not Issued	159	10/13/1998	NOVEL BETA2-ADRENORECEPTOR AGONISTS WITH REDUCED SYSTEMIC SIDE-EFFECTS	DRUZGALA , PASCAL J.
<u>60093018</u>	Not Issued	159	07/16/1998	NOVEL LONG-ACTING LOCAL ANESTHETICS	DRUZGALA , PASCAL
<u>60089632</u>	Not Issued	159	04/23/1998	LIPID ENVELOPES FOR TARGETED DRUG DELIVERY ASSEMBLED WITH BRANCHED POLYPEPTIDES	DRUZGALA , PASCAL J.
<u>60074422</u>	Not Issued	159	02/11/1998	DIACYLGLYCERYL ESTERS OF TRIGONELLINE: SYNTHESIS AND USE IN POLYNUCLEOTIDES DELIVERY SYSTEMS	DRUZGALA , PASCAL JEAN
<u>60041381</u>	Not Issued	159	03/26/1997	LIPID ENVELOPES FOR TARGETED DRUG DELIVERY ASSEMBLED WITH BRANCHED POLYPEPTIDES	DRUZGALA , PASCAL
<u>60041374</u>	Not Issued	159	03/26/1997	LIPID ENVELOPES FOR TARGETED DRUG DELIVERY ASSEMBLED WITH BRANCHED POLYPEPTIDES	DRUZGALA , PASCAL
<u>09356283</u>	<u>6114344</u>	150	07/16/1999	NOVEL LONG-ACTING LOCAL ANESTHETICS	DRUZGALA , PASCAL
<u>09211246</u>	<u>6130240</u>	150	12/14/1998	NOVEL COMPOUND FOR	DRUZGALA ,

				TREATMENT OF CARDIAC ARRHYTHMIA, SYNTHESIS, AND METHODS OF USE	PASCAL
<u>08468602</u>	<u>5849788</u>	150	06/06/1995	NOVEL COMPOUND FOR TREATMENT OF CARDIAC ARPHYTHMIA, SYNTHESIS, AND METHODS OF USE	DRUZGALA , PASCAL
<u>08260869</u>	<u>5440054</u>	150	06/16/1994	NOVEL COMPOUND FOR TREATMENT OF CARDIAC ARRHYTHMIA, SYNTHESIS, AND METHODS OF USE	DRUZGALA , PASCAL
<u>08078371</u>	<u>5364880</u>	150	06/16/1993	NOVEL COMPOUND FOR TREATMENT OF CARDIAC ARRHYTHMIA, SYNTHESIS, AND METHODS OF USE	DRUZGALA , PASCAL

Inventor Search Completed: No Records to Display.

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